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North Dakota Petroleum Council Teacher Education Seminar Contract # G-013-025

Report 2: August 1, 2008

Applicant: The North Dakota Petroleum Council

Principal Investigator: Ron Ness, President

North Dakota Petroleum Council 2008 Teacher Seminar

The objective of the North Dakota Petroleum Council Teacher Education Seminar (Seminar) is to educate teachers about the economic benefits and career opportunities provided by the North Dakota oil and gas industry enabling them to educate their students about the industry. A new addition to the Petroleum Council's education outreach program is the *Oil & Gas Tidbits (Tidbits)*. This is a publication distributed quarterly to North Dakota policy makers including past teachers who have attended the seminar, legislators, elected state, county and city officials, school superintendents, oil and gas industry members, and other interested parties in the oil and gas industry. The Petroleum Council feels this approach of reaching out to educate policy makers across the state is an important step in educating the public about North Dakota's oil and gas industry and informing them of key issues facing the industry as it expands.

The North Dakota Petroleum Council held a four-day seminar in Bismarck June 9-12, 2008 to educate teachers about the oil and gas industry. Forty-one participants from all over the state attended the Petroleum Council's 16th Teacher Education Seminar. During the 16 years, 634 teachers have taken the seminar. Computing the actual number of students those teachers have reached over the years is virtually impossible to derive since each teacher will reach a wide array of students with the information over the years. However, we believe that number is around 200,000 students.

A change was made in the seminar this year in response to comments made by previous participants. A fourth day was added to the schedule to allow teachers to learn more of the paleontology and prehistoric geology behind the creation of fossil fuels here in North Dakota. The extra day also allowed time to allow for a wrap-up discussion of oil and gas industry issues. Due to the additional hours, teachers are now able to receive two graduate credits for attending the seminar.

Upon arrival at the Seminar, the teachers were given an "Oil Industry Pop Quiz." Three days later, they were given the same pop quiz to determine if we impacted their opinions and understanding of the industry. National research indicates that the oil and gas industry ranks near the bottom, if not at the bottom, in favorable opinion of the public. From the quiz results, we discovered that our industry has much work to do on improving its image in North Dakota. There is a basic acknowledgement of the importance of the industry in North Dakota and that it

offers good jobs, but the opinion of the industry in North Dakota mirrors the national data. The quiz revealed that the 41 teachers that attended the Seminar, with the exception of a few from areas with oil activity, have virtually no concept of the size or scope of the industry in the state or how the industry conducts its business. However, we did realize that the results of the quiz changed drastically after three days of intense education about the industry. Therefore, we know that negative opinions about the oil industry can be changed with education.

Day one was spent in the classroom learning about the history of the industry, geology, physics, engineering, and production issues. Dave Fischer and Lynn Helms did a great job of teaching geology, physics, and engineering. Industry representatives joined the participants for an oil and gas industry stock simulation game and the 7th Annual Oil Trivia Bowl was held.

On day two, they toured the Mandan Tesoro Refinery and traveled to Dickinson, North Dakota where a group of 35 industry representatives provided lunch and presentations on their company's involvement in the oil extraction business and discussed the workforce needs and skill requirements for jobs in the oil industry. Attendees had the opportunity to also tour an oil rig, a producing well, and a work-over rig. There was also discussion of well site reclamation and the effort put forth by oil companies to restore the land to as good as, or better than, condition.

The third day was spent learning about the refining process, how retailers competitively price their product, and the various components reflected in the price of gas. Other events for this year's seminar included instruction on CO₂ management and CO₂ sequestration, a discussion on global warming and the science, politics, and economic reality behind it, and an oil tax revenue panel discussion. To conclude the day, the elementary teachers were educated about Project Learning Tree, a classroom program designed to teach grade school children about the energy industry, while the middle school and high school teachers explored career opportunities in the energy industry.

The fourth and final day offered a glimpse of life in North Dakota's prehistoric past. Dr. John Hoganson presented information on the plant and animal life during the different time periods in North Dakota's history. A guided tour was also given through North Dakota's Heritage Center to see the remains of the plants, animals, and dinosaurs that have become the source that fuels the world we live in today.

As a result of the Seminar, the teachers seem to have a better understanding of the complexity of the oil and gas industry and a better understanding of the volatility of gas prices and the input costs. To receive the graduate credits for attending the course, the teachers are required to submit a lesson plan on how they will incorporate what they learned into their classroom. The lesson plans submitted indicate they learned a great deal about the oil and gas industry and came up with creative methods of incorporating their new knowledge into the classrooms from grade school through high school.

The course evaluations were very positive. The teachers really enjoyed the tours and getting to meet all the industry representatives. They were shocked at how many different types of jobs exist in the industry and the technology used to produce oil.

The expected result of the Seminar is to provide an on-going education effort to educate students through their classrooms about the industry. This awareness will create a positive mindset about the oil and gas and energy industry in young people who, as future leaders, might translate their knowledge into a positive public opinion of the industry and ultimately effectuate favorable public policy towards the industry. A positive public opinion will help attract a workforce and create an interest and awareness of the career opportunities afforded by the North Dakota energy industry.

In March of 2008, the Petroleum Council produced a *Tidbits* focused on the distribution of oil tax dollars in 2007. The *Tidbits* highlighted the importance of oil tax revenues to the state of North Dakota and the impact they have on organizations, businesses, and individuals. Oil activity plays an important role in the funding of K-12 public education. *Tidbits* noted the potential for record oil and gas tax collections in 2008. In the last six months of 2007, over \$251 million in tax revenues were paid to the state. A portion of these funds are returned to counties, cities, and schools. The balance of these funds is used for funding other government programs and services including water development, primary and secondary education, and many more programs.

In July 2008, another version of *Tidbits* focused on the education efforts of the North Dakota Petroleum Council in cooperation with the Oil and Gas Research Council. The *Tidbits* provided a summary of the Teacher Education Seminar, the eight Town Hall Meetings, and the

Energy Career Awareness Partnership. *Tidbits* highlighted the tremendous effort put forth by the oil and gas industry to offer public education, to adults and youth alike, about the importance of oil and gas in North Dakota.

The Petroleum Council's budget for the Energy Education program was on target for the projected 2008 budget as proposed in the grant. Total expenses for the year are estimated to be approximately \$17,000 with a two-year budget of \$38,000. There will be two more *Tidbits* produced in 2008 and four versions of *Tidbits* in 2009. The topic of each *Tidbits* will be determined by what issue seems to be of the greatest public interest at the time of production.

Teacher Education Program Expenses Through July 2008

Contributions:

Grant (Oil & Gas Research Council)	\$ 6,000.00
Contribution from Members for Tour	\$ 250.00
Contribution from ND Landmans' Association	\$ 1,000.00
Contribution from Dickinson API	\$ 500.00
Contribution from Williston API	<u>\$ 500.00</u>
Total Contributions	\$ 8,250.00

Expenses:

Printing/Postage:

Labels/postage/sort fliers	\$ 876.37
Print Advertising Fliers	\$ 858.76

Facilities/Food:

BSC Administrative Fee	pending
BSC Housing	pending

BSC Food and Beverages

Hawktree Dinner and Refreshments	\$ 685.25
Tour Lunch	\$ 250.00
Heritage Center food	\$ 199.90

Miscellaneous:

Tour Bus	\$ 725.00
Miscellaneous Expenses	\$ 665.00
Energy Education Kits (\$100 x 25)	\$2,500.00
Facts & Figures Brochure (3,500)	\$ 495.00
Tidbits production and distribution	<u>\$4,273.02</u>

Total Expenses to Date	<u>\$11,528.30</u>
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There are still a number of outstanding expenses related to the 2008 Teacher Seminar, in addition, there will be expenses for the two *Tidbits* publications that will be published and distributed in the third and fourth quarter of 2008. The Petroleum Council will fund all the expenses incurred for 2008. The 2008 Teacher Seminar expenses were about 30% higher than previous years and the budgeted amount due to adding a fourth day in order to make it a two credit program for teachers. The *Tidbits* expenses are also substantially higher than budgeted due to the extra copies being printed due to the popularity of the documents. The expenses do not include any staff time or office supplies both of which are significant and likely would double the conference expenses as the Seminar takes many hours of preparation and a full week of staff time to complete.

In summary, the Teacher Education Seminar continues to be an extremely beneficial program for educating teachers about the oil and gas industry and Oil and Gas *Tidbits* is proving to be a useful outreach and education tool for policy-leaders across the state. In closing, I thought it would be appropriate to include some of the quotes from the 2008 Teacher Seminar attendees in their evaluations:

“I wish everyone who is impacted by the oil industry would take this seminar. The understanding they would gain could be huge.” Luanna Fisketjon, Williston, High School Occupation Counselor.

“A wide variety of information and views were presented. Top notch treatment in all aspects!” Drue Haarsager, Cheney, Middle School Teacher.

“I found the course to be very valuable. It ties the past to the future and relates the importance of oil to the economy of North Dakota.” Barbara Moos, Jamestown, Elementary Teacher.

“The information and materials provided will allow me to walk into my classroom with some lessons ready to go.” Mavis Druse, Surrey, Middle School Teacher.

“This course fits all grade levels and would fit the cross-curriculum that everyone is talking about. It would work in North Dakota studies, US history, world history, science, math, etc.” Kevin Heppner, Cando, High School Teacher.

“All of the topics chosen were excellent! This is a very worthwhile workshop.” Loy Ham, Beulah, High School.

Respectfully Submitted by Ron Ness